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| **Name:** |
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| **Group:** |
| 2A-4 |
| **Basic Science Question:** |
| Why do we need to consider biological width when placing subgingival margins? |
| **Report:** |
| Subgingival restorations are restorations with margins below the gingiva, and can be crowns/class 2 or class 5 restorations. It is important to consider the biological width, or the distance established by the junctional epithelium and connective tissue attachments to the root surface, when considering the viability of subgingival margins. In order to promote an efficient gingival healing process after placing a restoration with subgingival margins, we have to maintain the biological width of gingiva at the restoration site. If we place the margin of a restoration without considering the biological width, we can impinge on the supercrestal tissue attachments and we can expect an uncontrolled inflammation process which can lead to gingival recession, periodontitis and potentially bone loss.  Typically the gingival healing process consists of three phases: inflammation, new tissue formation, and tissue remodeling. If the restoration impinges on the biological width though, the affected attachments will cause increased inflammation. This deep gingival pocket will be difficult for the patient to clean properly, leading to chronic inflammation. In order to make more room for new attachments to form between the alveolar bone and the restoration margin, the body may trigger a process of bone reabsorbtion in the area of the restoration. If we are unable to achieve a subG margin without impinging on the bio width- we would insead recommend crown lengthening. |
| **References:** |
| Padbury, A., Eber, R., & Wang, H. (2003). Interactions between the gingiva and the margin of  restorations. *Journal of Clinical Periodontology*. Retrieved September 29, 2020, from <https://www.endoexperience.com/documents/Biologic_Width.pdf>  Nugala, B., Kumar, B., Sahitya, S., & Krishna, P. (2012). Biological width and its importance in periodontal and restorative dentistry. *Journal of Conservative Dentistry*. Retrieved September 29, 2020, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3284004/ |